

Geometry Chapter 1 Practice Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. Last year Miranda was 60 inches tall. This year she is 63 inches tall. What is the percent increase in her height?
- | | |
|--------|-------|
| A 5% | C 60% |
| B 6.3% | D 95% |
- _____ 2. Which expression is equivalent to $(2x-5)(2x+5)$?
- | | |
|---------------------|---------------|
| F $4x^2 - 20x - 25$ | H $4x^2 - 25$ |
| G $4x^2 + 20x - 25$ | J $4x^2 + 25$ |
- _____ 3. What are all the solutions to the equation $2x^2 = 72x$?
- | | |
|------|------------|
| A 36 | C 0 and 6 |
| B 0 | D 0 and 36 |
- _____ 4. A recipe for a dessert calls for 2 cups of blueberries and serves 9 people. Which equation can be solved to find the number of cups of blueberries needed to serve 30 people?
- | | |
|--------------------------------|------------------------------|
| F $\frac{2}{9} = \frac{n}{30}$ | H $2 \cdot 9 = 30n$ |
| G $\frac{2}{9} = \frac{30}{n}$ | J $9 \cdot 30 = \frac{n}{2}$ |
- _____ 5. If $3x-1$ represents a positive number, what is the next consecutive number greater than it?
- | | |
|----------|----------|
| A $3x-2$ | C $3x+1$ |
| B $3x$ | D $3x+2$ |

Matching

Match each vocabulary term with its definition.

- A collinear
- B segment
- C line
- D plane
- E point
- F ray
- G undefined term
- H coplanar

_____ 1. a basic figure that is not defined in terms of other figures

_____ 2. points that lie on the same line

_____ 3. a flat surface that has no thickness and extends forever

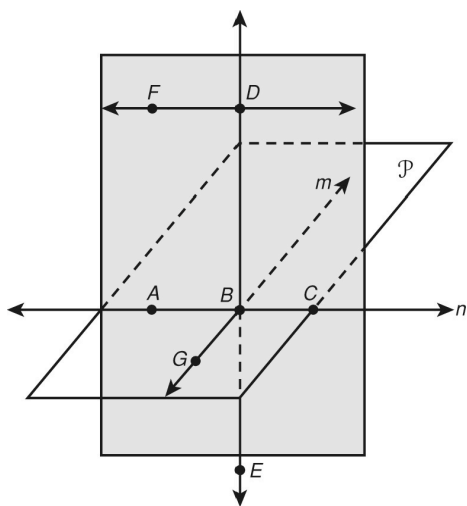
_____ 4. a straight path that has no thickness and extends forever

_____ 5. a location that has no size

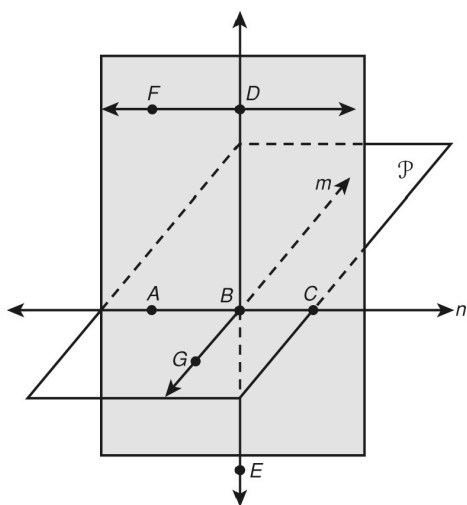
_____ 6. points that lie in the same plane

Short Answer

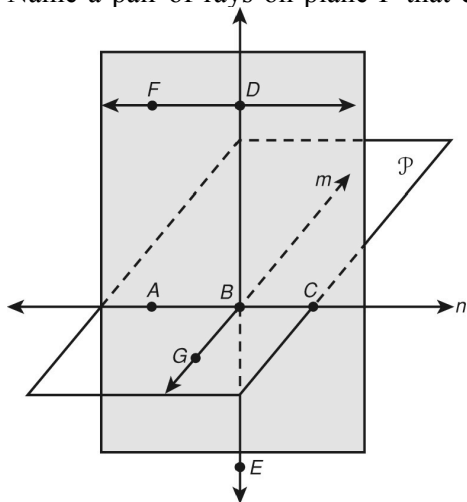
1. Name the plane containing line m in the figure.



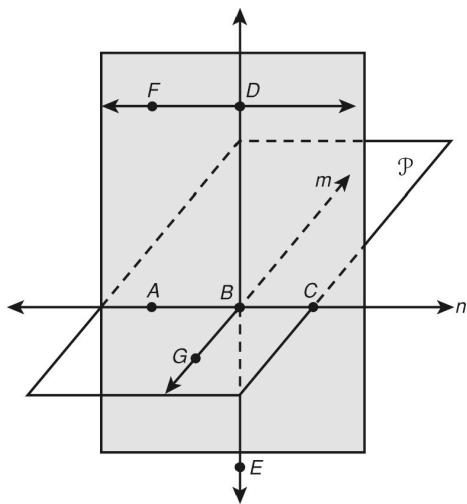
2. Name a segment on line n .



3. Name a pair of rays on plane P that contain B but do not have B as an endpoint.



4. Name three coplanar points NOT on plane P in the figure.



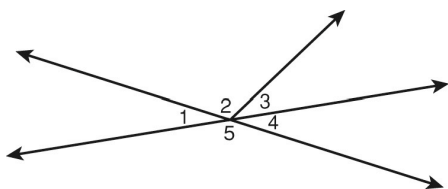
5. S is the midpoint of \overline{RT} , $RS = 2x + 4$, and $RT = 8x$. Find ST .

6. M bisects \overline{QP} , and $QP = 27.4$. Find QM .

7. $m\angle LMP = 132^\circ$. Classify the angle as acute, right, or obtuse.

8. \overrightarrow{XZ} bisects $\angle WXY$, and $m\angle WXZ = 65^\circ$. Find $m\angle WXY$.

9. Name a pair of vertical angles.



10. An angle measures three times the measure of its supplementary angle. Find the measure of both angles.

11. An angle measures 10° less than the measure of its complementary angle. Find the measure of both angles.

12. Find the area of a rectangle with a length of $x + 3$ meters and a width of $2x$ meters. Express your answer in terms of x .

13. The area of a triangle is 8.25 square centimeters. If the base of the triangle is 3 centimeters, what is the height?

14. Find the radius of a circle with a circumference of 100π inches.